

Title (en)  
RADAR SYSTEM, ANTENNA ARRAY FOR A RADAR SYSTEM, VEHICLE, AND METHOD FOR OPERATING A RADAR SYSTEM

Title (de)  
RADARSYSTEM, ANTENNENARRAY FÜR EIN RADARSYSTEM, FAHRZEUG UND VERFAHREN ZUM BETREIBEN EINES RADARSYSTEMS

Title (fr)  
SYSTÈME RADAR, RÉSEAU D'ANTENNES D'UN SYSTÈME RADAR, VÉHICULE ET PROCÉDÉ DE FONCTIONNEMENT D'UN SYSTÈME RADAR

Publication  
**EP 4189776 A2 20230607 (DE)**

Application  
**EP 21749602 A 20210727**

Priority  
• DE 102020119937 A 20200729  
• EP 2021070910 W 20210727

Abstract (en)  
[origin: WO2022023296A2] The radar system comprises a plurality of transmitting antennas (26), which can be controlled by means of respective transmission signals, and a plurality of receiving antennas (28), by means of which echos of transmitted radar signals can be received and converted into corresponding reception signals. The radar system additionally comprises at least one control and evaluation device (24), which is connected to the transmitting antennas (26) and to the receiving antennas (28). The respective phase centers (32) of at least two adjacent transmitting antennas (26) are arranged on an imaginary transmitter longitudinal axis (34). The phase center (32) of at least one additional transmitting antenna (26) is arranged at a transmitter transverse distance (36) from the transmitter longitudinal axis (34). An imaginary transmitter transverse axis (38) which runs through the phase center (32) of the at least one additional transmitting antenna (26) perpendicularly to the transmitter longitudinal axis (34) is spaced apart by a base distance (40) from an imaginary transmitter transverse axis (38) which runs through the phase center (32) of one of the at least two transmitting antennas (26) on the transmitter longitudinal axis (34) perpendicularly to the transmitter longitudinal axis (34). A transmitter longitudinal distance (42) between the imaginary transmitter transverse axes (38) of the at least two adjacent transmitting antennas (26) on the transmitter longitudinal axis (34) is greater than the base distance (40).

IPC 8 full level  
**H01Q 21/06** (2006.01); **G01S 13/02** (2006.01)

CPC (source: EP KR)  
**G01S 13/003** (2013.01 - KR); **G01S 13/42** (2013.01 - EP KR); **G01S 13/536** (2013.01 - KR); **G01S 13/931** (2013.01 - EP KR); **B60W 2420/408** (2024.01 - KR); **G01S 2013/0254** (2013.01 - EP KR)

Citation (search report)  
See references of WO 2022023296A2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**DE 102020119937 A1 20220203**; CN 116195138 A 20230530; EP 4189776 A2 20230607; JP 2023535510 A 20230817; KR 20230043990 A 20230331; WO 2022023296 A2 20220203; WO 2022023296 A3 20220324

DOCDB simple family (application)  
**DE 102020119937 A 20200729**; CN 202180064796 A 20210727; EP 2021070910 W 20210727; EP 21749602 A 20210727; JP 2023506071 A 20210727; KR 20237007169 A 20210727